This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

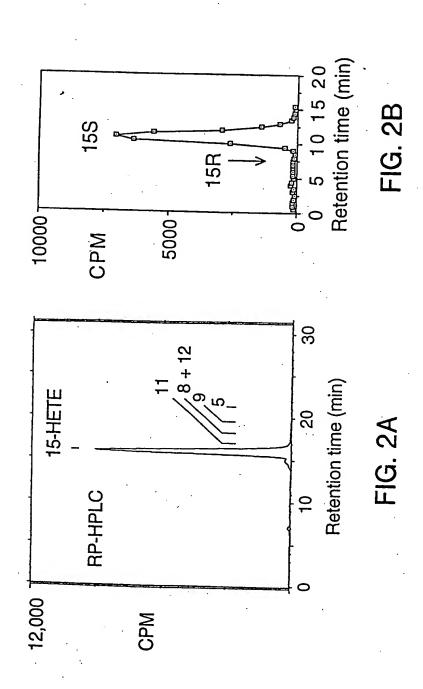
Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.



Title: Lipoxygenase Proteins and Nucleic Acids

Inventor: Brash et al. Attorney Docket: 1242/5/2/2 DIV

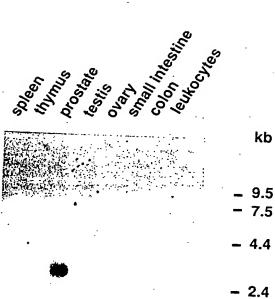


FIG. 3A

kb

- 1.4

4.4

Nucleic Acids

Inventor: Brash et al. Attorney Docket: 1242/5/2/2 DIV

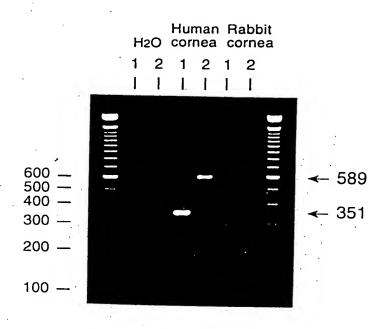


FIG. 4A

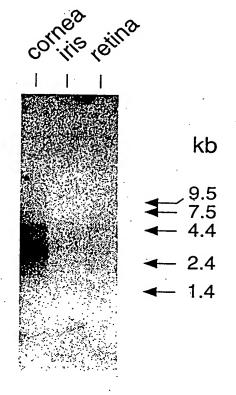


FIG. 4B

To calcingate the ATGGCGAAATGCAGGGTAAGAGAATATGCAAGAAATGCAAAAATGCAGGGGAAATGCAGGGAAATGCAAGAAATGCAAGAAATGCAAGAAATGCAAGAAAATGCAAGAAGAAAATGCAAAAAAAA	CAC 9(-		C		Γ.	_												
155	ACC F	\ \delta \(\delta \)		ک اغ لا	j H	ر کلک	1	MIG	Σ	200	A	GGP	R.	J.C.	[I4	5	>	, I	>
ָּבְּיִבְּיִבְּיִבְּיִבְּיִבְּיִבְּיִבְּי	්පූ ය) A	. 2) }. ≥	: 5	} >	AAG	×	ZCIZ	Ŋ	rgg,	3	Ş	[I4	CT.	×	GAG	Ŋ
) 		П	ر بخ) A		, i	CAG	O	I'AC	>	CIC	7	ည်	ø	AAZ	ы	Ş	Ŋ
	H H	:ACG	E	י קער. דער:	5 0	CAP C	Ħ	AGG	ρď	AAG.	×	3GA	G	3AT(Ω	PATK	Д	ĮĮ.	ч
. {	A S S	GIC	>	رج م	S		G	TCC	ß	ATC	Н	ACA	E	GAA(ы	ACT	H	ATT	Н
È	757	CGAC	ы	Ç	2	Ç	4	GAG	团	PAC	Z	ပ္ပ	ĸ	CAG	O	975	>	9	ტ
	S T G E A C G A G T W D K V S V S I V G T H	Ĕ	Įτ	إملا	VHKAPPEVSLPIMSFRSDAWFO	900	P G A A L H F P C Y Q W L E G A G E L V L R	K.T.J	Q D H H P T L Q D Q R Q K E L E S R Q K M Y	·Š	WPRCLDHETVKDLDLNIKYSAM	GAC	AHSAYTELKVKGLLDRTGLWR	1760	NFRKTPAAEYVFAHWQEDAFF	\mathcal{G}	PVLIRRCHSLPNNFPVTDEMVA	CAI	LOAELEKGSLFLVDHGILSGVH
Š	25 2	AGA	D) U	S	GGA)	ы	3GA(Ħ	3GAC	А	SCIG	Н	CAC	Ħ	TTC	Ŀ	GAT	Д
ć	Y X	AGA	E	TAT	Σ	Ğ	Н	GAA(. ×	CTTC	Н	3CTC	니	ğ	4	PAAC	Z	GIG	>
֓֞֞֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֡֓֡֓֓֓֡֓֓֡֓֡֓֡	5 -	TGA	田山	CT	ı	GTG	3	CCA	Q	AGA(Ω	AGG	୍.୯	STT	ĮΞĄ	AAAC	Z	Y	H
<u>ک</u> ج		Sign	ra,	ည	1	ATC.	O.	929	P	GAA	×	CAA	×	IĞI	>	CG	Д	STT	Щ
Š	ַבּרי מילי	SS	ں م	ည်	10	TT	۱ ۰	Ç	O	TGI	>	AGT	>	GTA	×	IÇI	H	SCI	ı
<u>}</u>	5 4	ဗ္ဗ		IGI	0,	Š	٥.	SG G	H	GAC		GAA	×	AGA	ы	CAG	ß	ÇŢĢ	Ŋ
	5 0	IČĀ	ĒL.	AAG	[1]	ည်	[t.	ğ	7	CGA	щ	SG	H	AGC	Æ,	ŢĞ	耳	9	Ŋ
ريان	5 C	AGT	四	gg		ACT.	H H	LAC:	-	Z)	<u>н</u>	95	щ	.¥GC	A	Sign		GAA	×
Ę	A C	AGG	×	ပ္ပ	д	50		CTAC	٠.	TIG.	. 7	TAC	<u>.</u>	TCC	μ,	$\frac{0}{2}$	P4	GGA	<u>ы</u>
Q 4	g g g	Ş	Ö	Ş	A	CAC	ر ه	ACC	in:	ည	()	CT2	~	AGAC		770	px,	GTT	 H
יללק	2 2 5 5	.13G	ы	AAG	×	Sig	ď	ATC	<u> </u>	SCI	œ.	g	<u>س</u>	3CA)	ω. 124	GAT	. 7	TGA	Щ
<u>ک</u>	} } E→	ATC	H	AC.	H	9	r O	ACC	Д	CIC	<u>.</u>	ACT	=	JCC	CL.	ည်	5	955	~
<u>ن</u> ا	S	3ACC	Ω	Š	>	Scrig	Д	'AAG	Ø	9	`.	Ç	Æ	ACT	z	SS	ρ Qı	1 <u>GC</u>	ت ب
AT.	; >	ध्यद्ध	ы	GAC	24	TAC	ᆸ.	9	Z	GIT	ტ	AAG	¥	TTA	Ĺц	ACC	z	GIC	ຶ່
AC A	ĸ	SCH	Д	Sign	ы	8	3	ည	ഗ	PAAG	回	TTA	Щ	TGI	니.	Ω̈́	н	S S S	E+
GTG.	; ;	GTA	>	AIG	¤	3AG	ы	313	>	ITT	н	TCI	ĮΤŧ	ပ္ပ	ri ri	55	ტ	GAA	O
AGG	ĸ	TTA	ы	CIG	ы	Sig	H	AAG.	×	PAC	≯-	ZZ	ᆈ.	GA.	æ	ATG	z	CTG	Д
JGC	ပ	ည္ဟ	ρ,	GIG	>	3AG	凹	302	æ	\CT3	E	AAAC	×	VTG2	Σ	TAA	ы	$\frac{9}{2}$	ტ
AAA	MAKCRVRV	GGAGAGAGCCCCTTAGTACCTCTGGACCATCTGGGCAAGGAGTTCAGCGCCGGTGCTGAAGAAGAGACTTCGAGGTGACGTTTCCAGGA	GESPLVPLDHLGKEFSAGAEEDFEVTLPOD	GTAGGCACTGTGCTGCTGCGAGTCCACAAAGCACCCCGGAAGTGTCCCTCCC	VGTVLMLR	TTC	RWFELEWL	3C.P.	EGAAKVSW	4AG2	SWKTYHEG	222	KNAKLFFK	3AG	LREMRRLF	TCC	SOFLNGIN	:TGG	ругсроду
55	¥	GAG	网	ပ္တ	o.	16 G	3	GGA	ന	1 GG;	>	AATK	z	3 000	æ	'AG1	Q	FIGC C	>
ATG	×	SS	ტ	GTA	>	CGCTGGTTCGAGCTGGAGTGGCTACCTGGGGCTGCACTCCACTTCCCCTGTTATCAGTGGCTGGAAGGGGGGGAGAAAAAAAA	ĸ	GAGGGAGCAGCAAAGGTGTCCTGGCAAGACCATCACCCTACACTGCAGGATCAGCGCCAGAAGGAGGAGCTTGAGTCCAGGCAGAAGATGTAC	ш	AGCTGGAAGACTTACATTGAAGGTTGGCCTCGCTGCCTTGACCACGAGACTGTGAAAGACTTGGACCTCAACATCAAGTACTCTGCGATG	ល	AAGAATGCCAAACTCTTCTTTAAAGCCCCACTCCGCGTATACGGAGCTGAAAGTCAAAGGGCTCCTGGACCGCACAGGACTCTGGAGGAGT	×	CTGAGGGAGATGAGAAGGCTGTTTAACTTCCGCAAGACTCCAGCAGCAGAGTATGTGTTTGCACACACTGGCAGGAAGATGCCTTCTTCGCC	ы	TCCCAGITICCTAAAIGGCAICAACCCGGICCTGAIITCGCCGCIGICACAGICTCCCCAAACAACTICCCGGICACTGAIGAAAIGGAAAA	Ŋ	CCAGTGCTGGGCCCTGGAACCAGTCTGCAGGTTGGAGAAGGGCTCCCTGTTCTTGGTGGATCATGGCATTCTTTCT	_ር

Nucleic Acids Inventor: Brash et al.

Attorney Docket: 1242/5/2/2 DIV

360 1170 390 1350 1260 420 450 1440 480 510 540 1530 1620 1710 **ACCAACATCCTCAATGGAAAGCCTCAGTTCTCTGCAGCCCCGATGACCCTGTTACACCAAGAGCTCAGGGTCCGGACCCCTGCTTCCCATT** CTGCCCAGCGATGACACGTGGGACTGGTTGCTGGCCCAAGACCTGG TACATCCATGAGGCTGTCACACATCTGCTGCATGCCCATCTGATTCCAGAAGTCTTTGCCTTGGCCACATTA CGTCAGCTGCCTAGGTGTCACCCTCTTCAAGCTATTGATTCCTCACATTCGGTACACTGCACATCAACACGCTTGCCCCGGGAGCTG ATCTGGGGGGAATAAAGAGCTTTGTCTCTGAAATAGTCAGCATCTACTATCCAAGTGACACATCCGTCCAAGATGACCAAGAGGCTCCAG 3 GTTCAGGCCAGTTCGACTCTTGTGTTTTGGATGCCCAAT GAGAGITITCATAGCCACGCTCCCAGCAGITAAITICG O Ø Z ഗ Q \mathbf{z} Н Z Ы X K 闰 回 **3GGGGATTCTCTGACCTGATAAAGAGAAACATG** Ы Ø K × Ω Z G [z, Ω H ĸ E C ß 3 > Z × Ø Д S Ö 印 Н ы K AACTACTCTGTCTGTGTCTCCCTGAAGATATCCGAGCCCGAGGTGTGGAAGAAGACATCCCAGGCTACT S 3 Д 耳 Ы ß Ы ß ۲ Н Н Д Ö H 0 Ω Ä Ø H Ø Q Д CD S Ω 耳 H ≻ ſz, ß \mathbf{z} Н ß Ш ы S d K G p, C S Н ρ, 耳 ტ 回 Ŋ ø CTCGTTGCCCCTGGGAAGTTGATAGACAAGTCCACAGGCCTTGGCACT H ᆸ 耳 H > ഗ 4 K Z ш Н Д G G Н 口 K Ø Д Н 二 H p; ß ĸ H G 4 Д H Ы G ď Ö × × Ø Z > Ы H K 口 K S ß A. × ß Н 闰 ſτι Ø Д [4 ഠ × S Ö O Q ტ 耳 Н Д ഠ > 臼 E٩ Д Д Н p, ſι S [ī4 Q. ĸ H I Н Ы ß ſτι Н Ö O ſτι Ö × Ö × > GTTCGCAATTCTGAG Z 闰 K Ö Н 回 \mathbf{z} Н S Д ď 四 H Н Q Z Н Þ ഗ Ö Д Z Ø > 3 3 \Rightarrow Д > ĸ Н Q

FIG. 5B

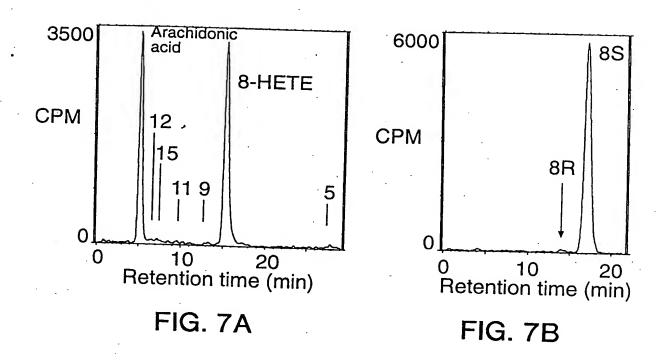
TCAAGTTATCACATCATTGCTCTCTGGCTGCTAAGCGCAGAACCTGGGCCCCTGGGCCCACTATCCAGATGAACACTTCACA S S Y H I I A L W L L S A E P G D Q R P L G H Y P D E H F T 630 GAGGATGCCCCCCGGCGAAGCCTGCTTCCAGAGAAAGCTGATCTCCAAGGGCATCAGGGAGGAACCGAGGCCTGGCA 1980 E D A P R R S V A A F Q R K L I Q I S K G I R E R N R G L A 660 CTGCCCTACACCTCACTCCCTCCTTTGAGAACAGTGTCTCCATCTTAA L P Y T Y L D P P L I E N S V S I * CATCTTGGAGAAGACAGTCCTGTGTGACATATAGAACTCTTTGACCATGCCTTTTCACCTTTAACTACTTTGACCATGCCTTTTTAACTACTTTGACCATGCCTTTTTAACTACTTTGACCATGCCTTTTTAACTACTTTGACCATGCCTTTTTAACTACTTTGACATCTTTGACCATGCCTTTTTAACTACTTTGACATCTTTGACCATGCCTTTTTAACTACTTTGACCATGCCTTTTTAACTACTTTGACCATGCCTTTTTAACTACTTTGACCATGCCTTTTTAACTACTTTTAACTACTTTTAACTACTTTTAACTACT	TUTITACACACACACACACACACACACACACACACACACAATAAAATCGAAAACACAAAAAACTAAAACTACCACGGTATGCTTCTCCTGGACACACAC
TCAAGTTATCACA1 S S Y H I GAGGATGCCCCCCG E D A P R CTGCCTACACCTA L P Y T Y CATCTTGGAGAAGA	TUTTACACACACACACACACACACACACACACACACACAC

8-Lox	15-Lox-2		15-Lox-2	8-Lox	15-Lox-2	8-Lox	15-Lox-2	8-Lox	15-Lox-2	8-Lox	15-Lox-2	8-Lox	15-Lox-2	8-гох	15-Lox-2
(1) MAKCRVRVSTĠEACGAGTWDŔVSVSIVGTHĠESPLVPLDHĹGKEFSAGAEEDFEVTLPQDŸGTVLMLRVHŘAPPEVSLPĽMSFRS 		(86) DAWFCRWFELEWLPGAALHFPCYQWLEGAGELVLREGAAKVSWQDHHPTLQDQRQKELESRQKMYSWKTYIEGWPRCLDHETVKD'	171 TEXTITION OF THE PROPERTY	110 LEINIKYSAMKNAKT.FFKAHSAYTELKVKGLIDRTGIMRSÍREMRRIFNFRKTPAAEYVFÁHWQEDAFFÁSQFINGINPÝLIRRC 170 LEINIKYSTAKNANFYLQAGSAFAEMKIKGLIDRKGIMPSTATEMPATEMPATEMPATEMPATEMPATEMPATEMPATEM	(258) HST CAMPERTURE OF THE SOFTWARD IN THE STANDARD STANDED OF THE SOFTWARD IN THE SOFTWARD I		(341) INPIET BENCHMAKET TO THE TOTAL PROPERTY OF THE PROPERTY	340 NSPIFLPTDDKNDWILLAKTWVRNSEFSTHEAVTHILHAHLIPEVFALATLRQLPRCHPLFKILIPHIRYTLHINTLAREILVAPG	(426) KI.IDK'SIDCI CACCOLAL	425 QUVDRSTGIEGFSELIQRNÆQIANYSLICLPEDIRARGVEDIÞGYYYRDDGMQÍMGAIKSFVSEIVSIYYPSDÍTSVQDDQELQ	(\$11) AMARETECEPE OF THE STATE	510 AWAKEIPSKGFLNOESSGIPSSLEIREALVOYITMVIFTCSAKHAAVSSCOFDSCVMMPNLPPTMQLPPPTSKGQARPESFIATL	(596) PAYNICHERT L.		676

Nucleic Acids

Inventor: Brash et al.

Attorney Docket: 1242/5/2/2 DIV



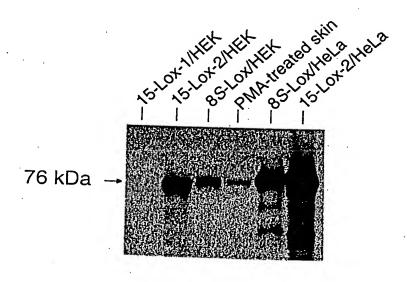
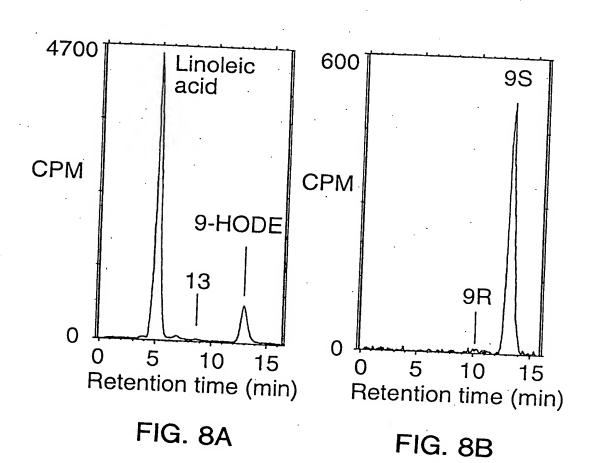


FIG. 7C

Title: Lipoxygenase Proteins and Nucleic Acids

Inventor: Brash et al.

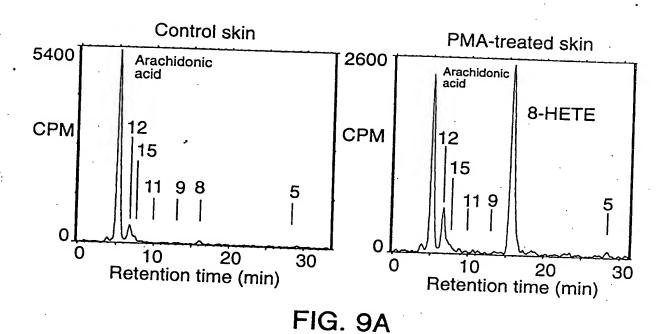
Attorney Docket: 1242/5/2/2 DIV



Nucleic Acids

Inventor: Brash et al.

Attorney Docket: 1242/5/2/2 DIV



28S-18S-Cyclophilin

Ciri Shir Short S

FIG. 9B

FIG. 9C

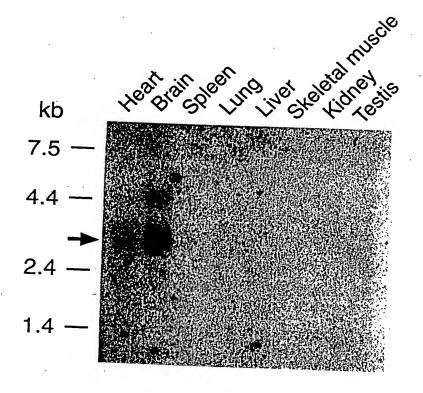


FIG. 10